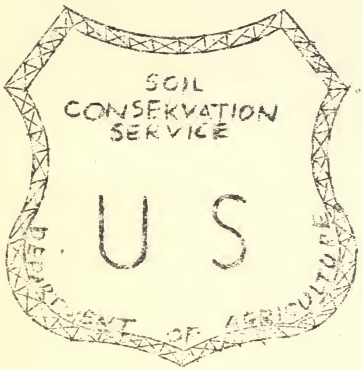
THE TAR HEEL WASH OFF

JUNE - 1936



UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

DEEP RIVER AREA

HIGH POINT, NORTH CAROLINA

Washington, D. C.

FOREST PLANTING AND CONTROL

The Woodland Management Division of the Soil Conservation Service has recently completed a successful planting season in North Carolina. Beginning in December 1935 and completed April 15, 1936, a total of 3,575 acres were planted.

The plantings averaged 1,254 trees per acre. Of these, 4,342,778 tree seedlings and 143,577 shrubs were used, or a total of 4,486,355 plants.

The main tree species used were 1,923,127 loblolly pine; 1,549,365 black locust; 380,136 longleaf pine; 240,401 shortleaf pine; 84,073 yellow pine; and 309,253 miscellaneous species. These miscellaneous species include black walnut, the oaks, pecan, red cedar and cypress. The stock planted is of species which produce products needed on the farm and give a high stumpage value if sold, thus promising future revenue as well as present erosion control to the farmer.

Of the total acreage planted, 63% was idle land that had been previously cultivated and then abandoned because of lack of productiveness, and about 16% of the area planted was gullied land.

Sixty-seven percent of the time required for the planting was CCC labor and 33% was WPA labor.

After these plantations are established, their management is supervised by the Woodland

Management Department of the Soil Conservation Service, with the actual responsibility for the carrying out of the plans being placed upon the owner of the land. The most important things in forest management in North Carolina are adequate protection from fire and grazing. Both of these cause great damage to any forest and especially to young seedlings.

It is the policy of the Soil Conservation Service to plant timber producing crops on steep slopes which are unfit for other agricultural crops, and that are a menace because of serious erosion.

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Experiments show that rows run up and down the hill, will lose approximately three times more soil than rows run on the contour, on the same slope and the same type of soil.

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Experiments at Statesville, North Carolina, reveals the facts that there is 140 times as much soil and six times as much water loss in woods that have been burned over as there is in those that have been protected from fire.

EROSION IN THE PIEDMONT

The Soil Conservation Service is interested not only in the checking of erosion, but also in controlling and removing the cause of this great menace to permanent agriculture, i.e., in the improving and building up of our farm lands. To better understand this objective, we should fully appreciate the problem. The area that may be covered by the Soil Conservation Service and its CCC-ECW camp activities in North Carolina, is practically all of the state lying east of the Blue Ridge Mountains. This includes the Piedmont Plateau and upper Coastal Plain areas. It is in this region that the problem of soil erosion is most acute, and with which the SCS is primarily concerned.

From the standpoint of topography, the Piedmont region may be described as decidedly rolling, and ranges in elevation from 250 feet along the Coastal Plain border to 1300 feet at the foot of the mountains.

A survey of the North Carolina Piedmont region shows that 60% of the area has at sometime been under cultivation, but due to economic conditions and various other factors, chief of which is erosion, much of the tilled portion was returned to woodland. In 1934, 55.9% of the region was covered by woodland, while 9.1% had been abandoned as utterly worthless, because of erosion damage. One-tenth of the great Piedmont has literally been swept away.

The question naturally arises - what causes erosion? The answer is - Man. Other factors and conditions, it is true, are responsible to some extent for erosion, such as the nature of the soils, slope and climatic conditions. While man has no control over the elements, he can, to a great extent, control the slopes and soils he selects to till. When a farmer cultivates steep slopes or erosive soils, he is simply "accelerating" erosion. The practice of running rows down the slope, cultivating continuous row crops, and the lack of winter cover crops, has still further contributed to the havoc.

Tobacco culture is responsible for more erosion damage and abandoned land than any other crop usage. Cotton tillage is a very poor second, and corn is third. These crops are clean tilled and on fields which usually have no winter cover crops. As a rule, tobacco rows are run down the slope, and corn rows the most convenient way, depending upon the shape of the field. Cotton is frequently planted on the contour. The ten most severely damaged counties in North Carolina are large producers of tobacco and cotton. These are Caswell, Anson, Davidson, Forsyth, Cleveland, Iredell, Catawba, Alexander, Cabarrus and Yadkin.

The Soil Conservation Service has eight demonstration projects and twenty CCC-ECW camps in the Piedmont region of North Carolina, each carrying on practical erosion prevention and control, and are doing much to reclaim some of the destroyed areas. This is done, of course, in cooperation with the land owner.

To a great extent, erosion can be checked on most soils by various methods, used either singly or in combinations. Some few soils, because of their physical character, must be handled with great care, and then only on slopes under 8 or 9%. The recommended control measures include the use of adapted rotations, strip cropping, contour tillage, or terracing. The latter two should go hand in hand. Ideal control is secured however, when all methods are combined. Rotations permit soil building by embracing legumes, winter cover crops, summer strip cropping, as well as thick-growing crops; terraces and contour tillage greatly reduce run-off and soil loss when clean cultivated crops are grown.

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TIME TO PLANT SUDAN GRASS

As a reminder, attention might be called to the fact that it is time to plant Sudan Grass. This makes an excellent supplementary summer pasture and soiling crop, and also excellent forage when grown with cowpeas or soybeans.

The time to plant Sudan Grass is from May 1st to July 1st. If broadcast, 30 to 40 pounds per acre is required, or 20 to 25 pounds if drilled. In mixtures, use 15 to 20 pounds of Sudan Grass to one bushel of cowpeas or soybeans.

Seed preparation is the same as that for small grains and the planting may be done with ordinary drills or seeders, or broadcast by hand, sown in two directions. About 200 to 300 pounds of superphosphate per acre is required at time of planting.

Do not pasture until plants are 12 to 18 inches high, and cut for hay just after plants head out. Cut for soiling as needed, and for harvest seed when well ripened.

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BOBWHITE

During the late days of April and the early days of May, the mating call of the bobwhite quail can be heard throughout the Carolinas. Those surviving the dangers of winter and the hunting season, then begin to plan for the rearing of new broods. The remnant covies now break up, with each pair of birds going its own way.

Popular interest in our first ranking game bird usually lags at this season, and it is timely then to give thought to its welfare. In the spring, the number of birds is much reduced and upon those that remain falls the responsibility of restocking the covies. Care in protection and affording adequate food supply during this period, will help to insure future abundance of birds.

The farmer realizes that to raise crops he must save some seed and care for the young plants the seed produces. This same technique applies to the bobwhite quail. It is estimated that three pairs from each covey should be saved from year to year to insure their continued existence without reduction. This number is not excessive when the high mortality rate is considered.

With little extra care in farm management, quail will rapidly increase in numbers. Food patches can be left along field borders and food-producing shrubs can be planted to provide necessary food and cover.

EDITORIALS

THE TARHEEL WASHOFF

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FEDERAL BUILDING - High Point, N. C.

STATE COORDINATOR - Dr. J. H. Stallings

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LITTLE PREACHMENTS

The history of civilization is coeval with the history of agriculture. Agriculture is the basic industry. It is the farmer who must sow and reap and "gather into barns," the various food crops for subsistance of man, beast, and fowl. He is the one who fills the bread-basket for every class, and it is, therefore, imperative that agricultural resources be conserved. To accomplish this, strict attention must be given the matter of soil erosion.

According to research, "the Father of his country" was the first advocate of soil erosion control in America. But,

even the great Washington could not foresee the terrible havoc that soil erosion would effect upon American farms during a brief century and a half of more or less haphazard cultivation, together with the wanton destruction by fire, axe, and saw of enormous amounts of timber.

Washington's thought of erosion control, however, was by no means original, as research also reveals that Columella, prominent Roman Agricultural writer, contemparary of Claudius Caesar, and friend of Seneca the Stoic, was publishing his plans of agricultural reform to the Roman populace twenty centuries ago. It should be of interest to the modern American, to learn that Columella proposed some of the same methods for building up the soil and conserving resources which the Soil Conservation Service, by well-directed effort, is now following in the Piedmont region, where many farmers are now contributing a one hundred percent cooperation to the successful prosecution of the erosion control program.

After all is said anddone, the ultimate success of an erosion control program is squarely up to the farmer. If he would profitably carry on and meet the needs of those dependent upon his produce, he must apply up-to-date agricultural methods, and follow closely a well-balanced program of erosion control, which embraces contour tillage, rotation of crops, terracing, strip cropping, cover crops, etc. Adequate forest growth must be maintained as this aids materially in the prevention of erosion, conserves moisture and adds humus to the soil.

The keystone upon which rests the structure of future civilization is the proper care and preservation of the soil.

"MAN MADE" EROSION

There are two general kinds of erosion, one the ageless geological process that wears down the towering mountains to form the fertile valleys and broad plateaus in which we live; this is a beneficent process. The other kind is "man-made", or "accelerated" erosion, - a rapid, destructive process which has its roots in civilization's need for the produce of the soil. It began when man first gave up the pursuit of wild game for his food and started the systematic cultivation of plants and the domestication of food-producing animals.

It takes Nature hundreds of years to make and perfect a single inch of good rich topsoil; but man may destroy a 7 inch thickness of precious soil in one life's span. That is why it is called "man-made" erosion.

When man cuts down the trees, plants crops on steep hillsides formerly covered by grass, and plows acre after acre of sloping fields so that the rainfall is allowed to flow readily over it and carry the soil away, he is inviting erosion. When soil loss follows his misguided operations, we call it "man-made" erosion.

Hillside land too steep for practical cultivation should be retired from crop production and restored to trees and grasses, which are Nature's own weapons against erosion. Vegetation provides the dual benefit of anchoring the soil and reducing the run-off of water.

Man can not create soil but he can conserve that which he already has. The

creation of soil is a task of Nature, requiring centuries. The conservation of soil is a sensible, intelligent economic practice, and its cost is easily justified when one stops to consider what an acre of good land saved today will mean to every succeeding generation that lives upon what it produces.

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HOW MANY CAN YOU ANSWER?

Q. 1 - How many acres in Guilford County have been abandoned due to erosion?

Q. 2 - What percent of Randolph County is in farms?

Q. 3 - What is the average acreage of corn per farm grown in Randolph County?

Q. 4 - What is the acreage of tobacco grown in Forsyth County?

Q. 5 - How many acres in Forsyth County with little or no erosion?

Q. 6 - What is the estimated value of plant food only, lost to North Carolina farmers each year due to erosion?

Q. 7 - What is the average size farm in the Deep River area?

Q. 8 - What percentage of the Deep River area is in trees?

Q. 9 - What percent of the Deep River area is in cultivation?

Q. 10 - What is the best all-round crop for gully control and pasture?

(See back page for answers)

STRAY CATS DESTROY MANY VALUABLE BIRDS

One of the greatest menaces to wild bird life is the "hunter cat". The hunter cat is just an ordinary house cat whose carnivorous instincts develop everytime it needs something to eat. The creatures' sly, skulking, stealthy habits become pronounced whenever it sees a small animal that it desires as prey. The cat is a past master in "soft pedaling", "gum shoeing" and bewitching helpless song birds.

The nice gentle cats around towns and cities that are housed in the parlor and fed in the kitchen, may not be driven to kill young birds as food, but every time they go out in the yard, they put consternation into the hearts of the mother birds nesting in the vicinity. The appearance of a house cat in the yard has a tendency to prevent song birds from nesting in nearby trees. The cat is an ancient enemy ofthe bird and the bird cannot tell the difference between an innocent modern pussy cat that sleeps on the sofa in the house and one that sleeps under a brush pile in the field.

For years there have been too many town cats. Excess cats in the kitten stage are not infrequently taken from their home and liberated in the country where they eke out a meager existence until they become expert hunter cats.

Often owners of excess cats in town will say, "Put 'em in a sack and take 'em to the country. Its a shame to kill 'em for killing rats".

"To heck with your darned cats", wishes the farmer. "I don't dump my excess cats in town do I?"

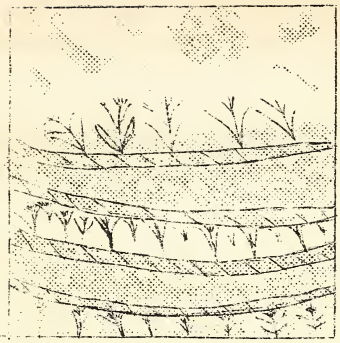
Land owners overstocked with hunter cats cannot have birds and do not want bugs, but they will have bugs if they must have cats. During the springtime birds seek proper cover for nesting and in seeking cover they have a tendency to seek places free from such animals as cats.

If the eggs or young birds in the nests are not found by the hunter cats, a certain percentage of the young fledglings are sure to be found about the time they are beginning to fly.

The State Game and Fish Commission has worked in order to exterminate these hunter cats throughout the country. However, the old process of putting young cats in a sack and taking them to the country is still going on.

If people must have a certain number of cats, some method of cat sterilization should be worked out. "Sangerization", or something of the kind might be devised in order to give beautiful and beneficial wild birds a chance to live, develop, eat harmful bugs and sing.

ROW CROPS AND TERRACES



We are glad to report that farmers in the Deep River area have realized that the time has come to do away with the old idea of planting their row crops in a line straight down the hill. At this time of the year we can see tobacco rows being laid out, and corn being planted along contour lines which run around the slope instead of with it. Where terraces have been placed it is easy to do this, because these are permanent markers which can be followed year after year.

We ask ourselves the question - Why have we not always done this? It is a well known fact that water, running down hill unchecked, will carry with it the very soil which is required for the production of good crops. And knowing this, is it but natural that we should stop to consider methods to prevent this constant washing of our soil?

One method used to control this moving of soil from the field is a terrace system. Terraces will check the flow of water and carry it off to the edge of the field in an orderly manner. But the terrace, once placed, must be given a chance to do its work properly. If rows are run down the slope across each terrace, it means that, with each cultivation of the crop, the top of the terrace is cut into more and more,

and is lost to use by cutting down the height necessary to carry the water behind it. It is also found that the washing of soil between terraces is not checked.

Each row, running square into the terrace, will allow the water to gather and rush down the row, carrying soil with it into the flow line of the terrace. So we have cultivation cutting down the terrace ridge and silt filling up the channel which makes the life of the terrace very limited. Knowing these facts we can easily appreciate the necessity of following the terraces with the rows.

There are yet a few farmers who fail to realize the importance of this, but we believe these are constantly on the lookout for ways and means to improve their farming practices, also what has been done cooperators farms will show them a better and more profitable method of cultivating their own farms.

It is of paramount importance that terraces be kept intact; that rows be run parallel instead of across them, thus holding the soil on the field for the production of better crops from which the farmer gets his dividend.

ROTATION OF SOD

A Davidson County farmer states that by practicing a good rotation, his wheat yield was increased from 27 bushels to 53 bushels per acre during a period of seven years, and doubled the yield of ensilage corn within the same length of time.

This same farmer says:

"A few years ago I could get all the sand I needed from the stream beds on my farm. I have since seeded to hay mixture a strip 100 to 300 feet wide along the streams. This sod has stopped erosion to such an extent that I now have to buy the sand I need for use on my farm."

This is but one of many clear cut demonstrations of what proper rotation will do to increase crop yield, and of what thick growing crops will do in controlling erosion.

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Reports from twelve Soil Erosion Experiment Stations in the United States, show that on an average a sod of grass is 65 times more effective in controlling erosion than clean cultivated crops, such as corn, cotton and tobacco, and the grass will conserve five times more water than clean cultivated crops.

In view of these facts, should we not plan for more hay and more permanent pasture?

ANSWERS TO QUESTIONS

1 - 22,500 acres

2 - 79%

3 - 9 acres

4 - 7,025 acres in 1935

5 - 150,137 acres

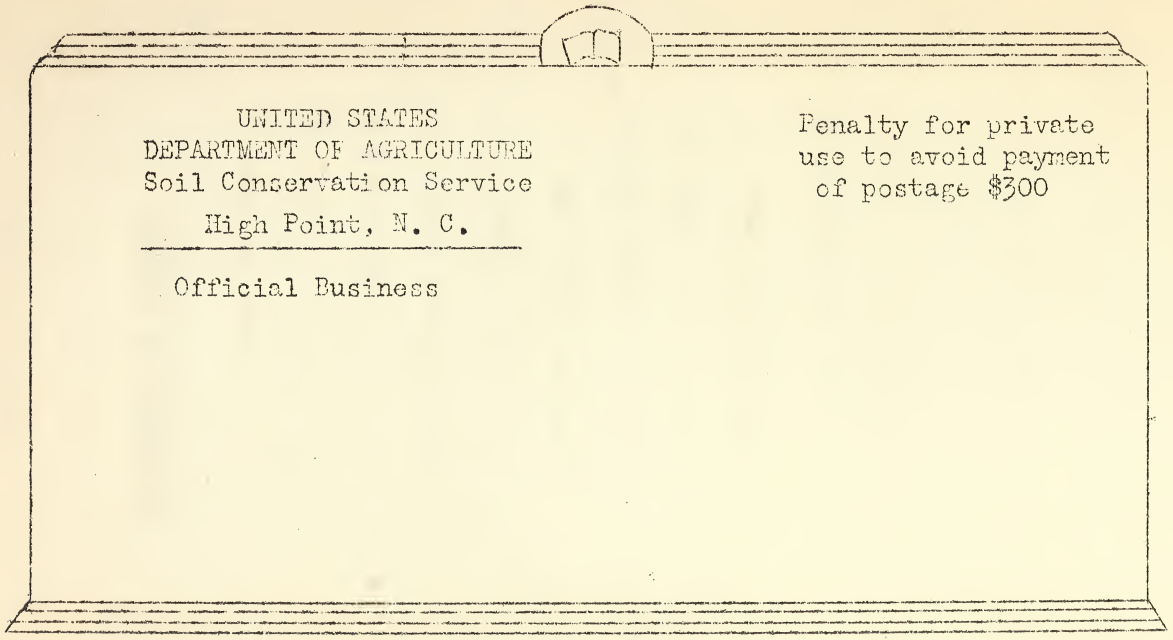
6 - $66,000.00 annually

7 - 70 acres

8 - 55%

9 - Approximately 37%

10 - Lespedeza



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Soil Conservation Service
High Point, N. C.

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